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LPS40-M Series

40 Watts Medical

Total Power: 40-55 Watts **Input Voltage:** 85-264 VAC 120-300 VDC

of Outputs: Single





Electrical Specifications

Input

Input range: 85 - 264 VAC; 120 - 300 VDC

Frequency: 47 - 440 Hz

Inrush current: < 18A peak @ 115 VAC; <36A peak @ 230 VAC, cold start @ 25 °C

Input current: 1A max. (RMS) @ 115 VAC Efficiency: 70% typical at full load

EMI filter: FCC Class B conducted; CISPR 22 Class A conducted;

EN55022 Class A conducted; VDE 0878 PT3 Class A conducted

Safety ground $<75\mu A @ 50/60 Hz$, 264 VAC input

leakage current:

Output

Maximum power: 40 W for convection; 55 W with 30CFM forced air

Adjustment range: -5, +10% minimum

Hold-up time: 20ms @ 40 W load, 115 VAC nominal line Overload protection: Short circuit protection on all outputs

Overload protection: Short circuit protection on all outputs Case overload protected @ 110 - 145% above peak rating

Overvoltage protection: 5V output; 5.7 to 6.7 VDC. Other outputs 10% to 25% above nominal

output

Remote sense: Compensates for 0.5 V lead drop minimum.

Will operate without remote sense connected.

Reverse connection protected.

Special Features

Medical safety approvals

Universal input3" x 5" footprint

• Less than 1U high

• Remote sense on main output

Low output rippleAdjustable 5V output

• Overvoltage protection

• Overload protection

• 110 KHz switching frequency

• LPX40 enclosure kit available

Safety

• **VDE** 0750/EN60601-1 (IEC601)

• UL UL2601 E182560 • CSA CSA 22.2 No.601.1 LR109492

• CE Mark (LVD)





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Environmental Specifications

Operating temperature: 0° to 50 °C ambient. Derate each output 2.5% per degree from 50° to 70 °C, -20 °C startup

Storage temperature: -40 °C to +85 °C Temperature coefficient: ± 0.4% per °C

Electromagnetic Designed to meet IEC 801, -2, -3, -4, -5, -6, Level 3

susceptibility:

Humidity: Operating; non-condensing 5% to 95% RH

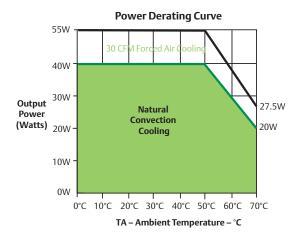
Vibration: Three orthogonal axes, sweep at 1 oct/min, 5 min. dwell at four major resonances 0.75G

peak 5 Hz to 500 Hz, operational

MTBF demonstrated: > 550,000 hours at full load and 25 °C ambient conditions

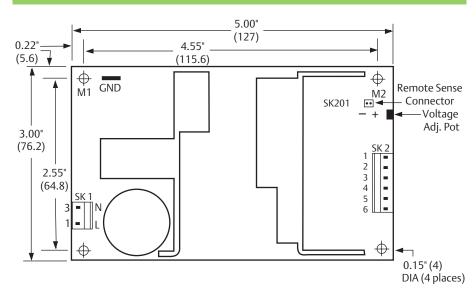
Ordering Information									
Model Number	Output Voltage	Minimum Load	Maximum Load with Convection cooling	Maximum Load with 30CFM Forced Air	Peak Load¹	Regulation ²	Ripple P/P (PARD)³		
LPS42-M	5 V	0 A	8 A	11 A	12 A	± 2%	50mV		
LPS43-M	12 V	0 A	3.3 A	4.5 A	5 A	± 2%	120 mV		
LPS44-M	15 V	0 A	2.6 A	3.6 A	4 A	± 2%	150 mV		
LPS45-M	24 V	0 A	1.6 A	2.3 A	2.5 A	± 2%	240 mV		

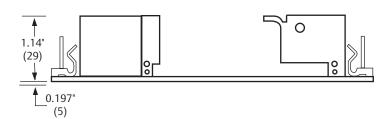
- 1. Peak current lasting < 30 seconds with a maximum 10% duty cycle.
- 2. At 25 °C including initial tolerance, line voltage, load currents and output voltages adjusted to factory settings.
- 3. Peak-to-peak with 20 MHz bandwidth and 10 μ F in parallel with a 0.1 μ F capacitor at rated line voltage and load ranges.



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Mechanical Drawing





Mating Connectors

Pin Assignments							
Connector	LPS42-M	LPS43-M	LPS44-M	LPS45-M			
SK1-1	Neutral	Neutral	Neutral	Neutral			
SK1-3	Line	Line	Line	Line			
SK2-1	+5V	+12V	+15V	+24V			
SK2- 2	+5V	+12V	+15V	+24V			
SK2-3	+5V	+12V	+15V	+24V			
SK2-4	Common	Common	Common	Common			
SK2-5	Common	Common	Common	Common			
SK2-6	Common	Common	Common	Common			
SK201-1	+Sense	+Sense	+Sense	+Sense			
SK201-2	-Sense	-Sense	-Sense	-Sense			

AC Input:		Molex 09-50-8031 (USA) 09-91-0300 (UK) PINS: 08-52-0113				
DC Outputs:		Molex 09-50-8061 (USA) 09-91-0600 (UK) PINS: 08-52-0113				
Remote Sense:		Molex 22-01-2025 PINS: 08-52-0123				
Em	ierson Netwoi	k Power Connector Kit #70-841-006, includes all of				
the	above					
1.	Specification	s subject to change without notice.				
2.	. All dimensions in inches (mm), tolerance is ± 0.02" (± 0.5mm)					
3.	. Mounting holes M1 and M2 should be grounded for EMI purposes.					
4.	Mounting hole M1 is safety ground connection.					
5.	Specifications are for convection rating at factory settings at 115 VAC input, 25 °C unless otherwise stated.					
6.	Warranty: 2 year					
7.	Weight: 0.5lbs/0.23kg					

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